A.   General Questions

1. What is the data standards revision process?

Data standards are not static. They will continue to evolve as needs change and areas of information evolve and/or grow. A call for a revision of a standard can come to the Environmental Data Standards Council (EDSC) from subject area experts or from data standards experts. When a request for revision of a standard is received, a group knowledgeable in the area of standardization is pulled together to review the standard. A draft revision is presented to the EDSC and then revision goes through a technical review of 30-60 days depending on the extent of the recommended changes. After the resolution of comments, the revision is either posted in the Federal Register (if the revisions are minor), or sent to the Federal Register for a 45-day public review (if the revisions are extensive).

2. What are the formatting changes?

There are several user-specific reasons why we felt the older data standards needed reformatting:

- *The EDSC has adopted a more modular implementation of data standards, which is not reflected in the formats of many of the older, pre-EDSC data standards. Modularization1 or the creation of data groupings enables data standards to be more flexible in that pieces can be extracted and reused as needed.*
- *By using consistent formatting, the reformatted standards provide clarity to users so they can expect the same look and feel throughout all the data standards. In essence we are standardizing the way data standards are "published."*
- *The new format is the standard format used by most national and international standards organizations.*

3. Why have identifier elements been standardized to include optional metadata (Identifier Context)? Why have code elements been standardized to include optional metadata (Code List Identifier, Code List Version Identifier, Code List Version Agency Identifier, Code List Name)?

__Identifiers:__ The ability to specify an identifier context along with an identifier is a major innovation. The ability to use an Identifier Context to further describe Identifiers allows

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[1] Modularization is the creation of data groupings of like data elements within the standard. For example an "address" data group would have data elements for street number, street name, city, state, postal code, and if needed, country code. The group can be used wherever address information is needed. This process has been compared to building with "Lego" blocks. The groups can be extracted from the data standard to be used and reused as needed in various configurations. This reuse creates an economy of design effort and promotes conformity to data standards.

the data standard to support multiple identifiers. For example, one user may decide to use a ten-digit alphanumeric code for a facility site identifier while another may opt for a four-digit numeric identifier. They both would indicate the <u>source</u> of the identifier that they are using in the context metadata element. This makes the standard more flexible for users by being able to accommodate multiple sources of identifier lists. At the same time, the standard is not overly prescriptive by forcing the use of one central set of identifiers. Two states trading information may use one set of identifiers and when trading with U.S. EPA they may use another set. In addition, certain data exchanges could simultaneously include identifiers from multiple sources.

***Codes:** <u>The ability to specify code metadata (code list identifier, code list version identifier, code list version agency identifier, and code name) is also a major innovation.</u> The inclusion of the Code List Identifier metadata opens up the data standard to support more than one listing of codes, by allowing trading partners to identify the managed code list from which the codes originate. In addition, since many managed code lists are periodically revised, the Version Identifier metadata allows trading partners to specify the particular version of a code list for which their code applies. This allows for a more precise exchange of information, ultimately improving data quality. The Code List Version Agency Identifier metadata allows trading partners to specify the owner of a particular code list. The Code Name metadata allows trading partners to specify the name that is associated with a particular code. Overall, this additional metadata provides trading partners with the ability to more fully describe the coded information they are exchanging.*

4. What is the relationship between data standards in the Core Reference Model and Shared Schema Components?
The Core Reference Model provides a high-level depiction of major groupings of environmental data used during the data exchange and creates reusable building blocks of shared XML schema. The Shared Schema Components are a product of the Core Reference Model, which provides groupings of related data elements and data groupings into what are referred to as Major Data Groups to more fully describe business areas, functions and entities where partners have an environmental interest. Furthermore:

Shared Schema Components
- *Are reusable XML schema that organize related data elements common to multiple environmental data flows*
- *Incorporate Environmental Data Standards Council (EDSC) data standards for data element grouping, data element names, and definitions*
- *Facilitate the creation of XML schema for environmental data flow and improve the quality of exchanged data.*

The Shared Schema Components are available in the Exchange Network's XML registry found at http://www.exchangenetwork.net.

5. **Will any of the other standards be revised?**
   Yes, review and revision is an important part of the data standards process. The EDSC web site http://www.envdatastandards.net will keep you informed of all data standards news.

6. **When do I have to conform to the revised data standards?**
   Everyone should conform to the new data standards as soon as it is practical to do so. Final shared schema components implement the latest standards revisions and are available to be used in developing new Exchange Network Flow Schema and incorporating into revisions of existing Exchange Network Flow Schema.

B.   **Data Standard Specific Questions**

1. **What are the major changes to the Biological Taxonomy Data Standard?**
   This version of the Biological Taxonomy Data Standard replaces the February 22, 2001 approved version. This Standard was formatted to reflect the September 2004 Environmental Data Standards Council (EDSC) standards template. Data elements and groupings were not changed.

2. **What are the major changes to the Contact Information Data Standard?**
   This version of the Contact Information Data Standard replaces the August 15, 2003 approved version. This Standard was formatted to reflect the September 2004 Environmental Data Standards Council (EDSC) standards template.

   The Contact Information Data Standard is now the primary data standard for contact information. In order to accomplish this, several data groupings and data elements were moved from the Facility Site Identification Data Standard. These include: Individual, Affiliation, Address, and Geographic Address. Additional data elements were added to Contact Information including: affiliation information (i.e., Start Date, End Date and Status), tribal land information, and identifiers for individuals and organizations. Except for the changes listed above, the data elements and groupings were not changed.

   The Facility Site Identification Data Standard was created before the Contact Information Data Standard so it contained much of the contact information and the Contact Information Data Standard referenced that material. The Facility Site Identification and other data standards now reference the contact related data elements in the Contact Information Data Standard.

3. **What are the major changes to the Facility Site Identification Data Standard?**

This version of the Facility Site Identification Data Standard replaces the November 12, 2003 approved version. This Standard was formatted to reflect the September 2004 Environmental Data Standards Council (EDSC) standards template.

Contact related data elements were moved from the Facility Site Identification to the Contact Information Data Standard. The groupings and elements moved to the Contact Information Data Standard include: Individual, Affiliation, Address, and Geographic Address. These grouping and elements are now referenced in the Facility Site Identification Data Standard. This data standard now references the following EDSC standards: Contact Information Data Standard, Latitude and Longitude Data Standard, and the SIC/NAICS Standard. The Federal Facility Identifier Data Standard was incorporated into this data standard. Some data elements were added to the standard, including: Facility Site Type Code and Federal Facility Indicator. Finally, the universal change of providing the ability to use optional metadata for codes and identifiers was applied.

4. **What are the major changes to the Permitting Information Data Standard?**
   This version of the Permitting Information Data Standard replaces the November 12, 2003 version. This Standard was reformatted to reflect the September 2004 Environmental Data Standard Council (EDSC) standards template. The standard now references the Measure data standard for describing Facility/Feature Characteristic Measure and Condition Quantity Measure. Some new data elements were added, including: Permitted Feature Description Text, Permit Event Type and Permit Event Date. Finally, the universal change of providing the ability to use optional metadata for codes and identifiers was applied. With that exception, data elements and groupings were not changed.

5. **What are the major changes to the SIC/NAICS Data Standard?**
   This version of the SIC/NAICS Data Standard replaces the January 20, 1999 approved version. This Standard was reformatted to reflect the September 2004 Environmental Data Standard Council (EDSC) standards template. Data elements and groupings were not changed.

6. **What are the major changes to the Tribal Identifier Data Standard?**
   This version of the Tribal Identifiers Data Standard replaces the December 5, 2003 approved version. This Standard was reformatted to reflect the September 2004 Environmental Data Standard Council (EDSC) standards template. Data elements and groupings were not changed.

C. **Implementation Questions**

1. **Why have some of the XML tags in the data standards been changed?**
   All XML tags were reviewed and harmonized with the Exchange Network's XML Design Rules and Conventions guidance document. Many of the XML tags in the older data

standards were created prior to the issuance of the XML Design Rules guidance. In addition XML tags were introduced at the data groupings level; previously only data elements were given XML tags.

2.   **Where can I access XML schema components?**
   The shared schema components are available in the XML registry found at http://www.exchangenetwork.net.

3.   **Am I required to use all the elements to be in conformance with the data standard?**
   No, you can use only those data groupings or data elements that you have a business need to use.

4.   **Are there permitted values for the "identifier context" wherever it is used?**
   In exchanges among partners permitted values will be identified in schema, flow configuration documents, or trading partner agreements.

5.   **Are there permitted values for the "code list identifier wherever it is used?**
   In exchanges among partners permitted values will be identified in schema, flow configuration documents, or trading partner agreements.

6.   **If data has been collected using multiple "identifier contexts" for a particular identifier or using multiple "code lists" for a code, who maintains the official mappings among the contexts or code lists so that the data may be cross-tabulated correctly?**
   *Trading partners should document and maintain official mappings between identifier contexts and code lists for the identifiers and code lists they exchange. To ensure maximum reuse and comprehension for secondary users, trading partners should use a documented or if available, an officially recognized code list identifier for each code set used. For example, the List of County Codes for the State of Anywhere, found at their web site http://www.State of Anywhere.state.us) or the FIPS 10-4, a Federal Information processing standard that is the official authority for country codes to support the mission of the Department of State and national defense (*http://www.itl.nist.gov/fipspubs/fip10-4.htm*).*